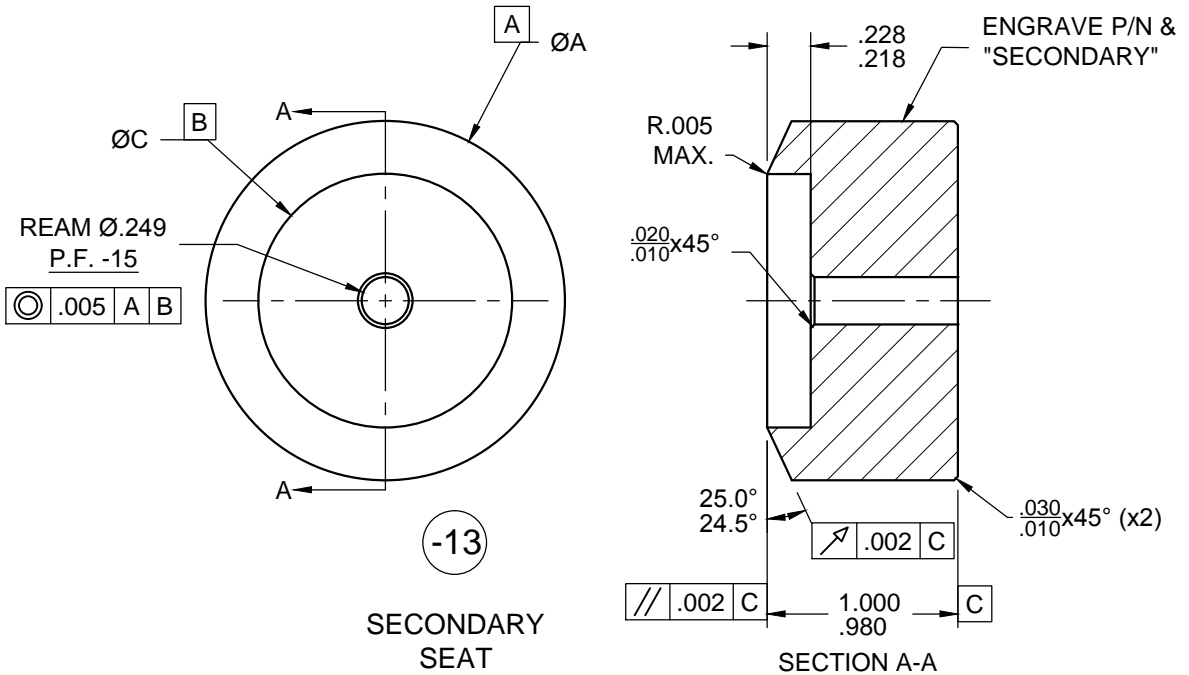

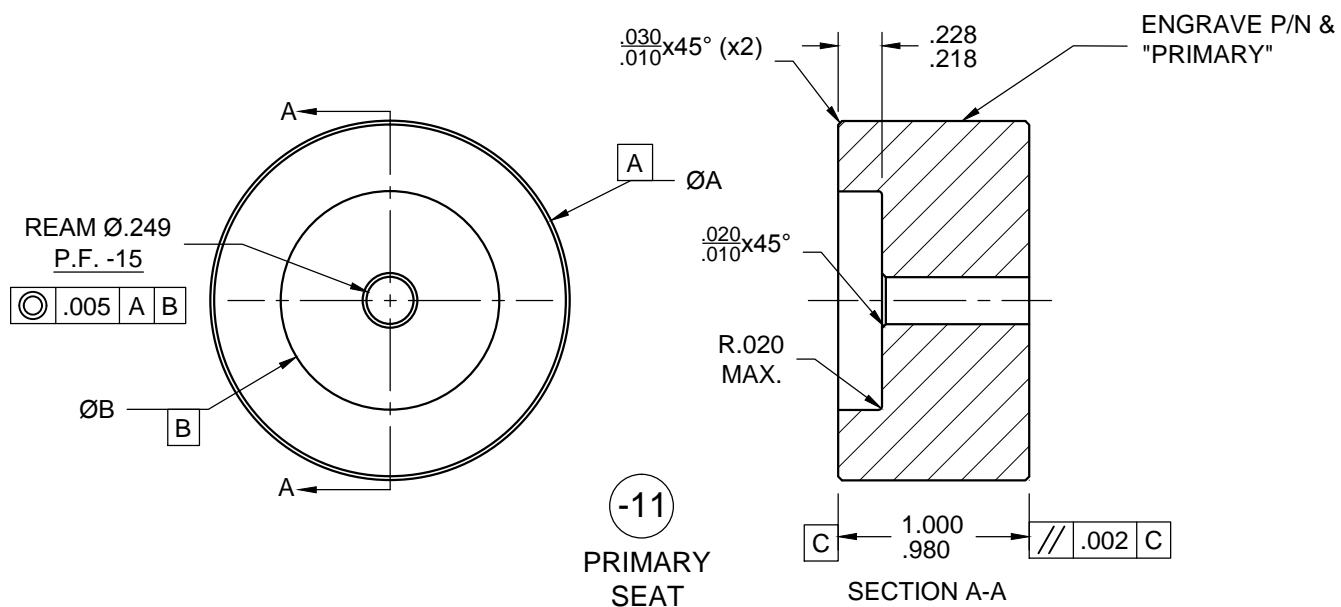


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NOTES


1. BREAK ALL SHARP CORNERS (.015/.03).

 RED BARN MACHINE			
TITLE KSTHA SERIES DP TRI-ROLLER SWAGING TOOLS FOR BACB10HA BEARINGS			
DWG NO. (TOOL#) -13 SECONDARY SEAT		REV 1	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX \pm .005 .XX \pm .01 .X \pm .1 FRACTIONS \pm 1/32 ANGLES \pm 5°		DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC BLACK OXIDE	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON BEARING SEE Pg. 1	
SCALE NTS	DATE 6-3-08	SHEET 8	of 9

[illegible]

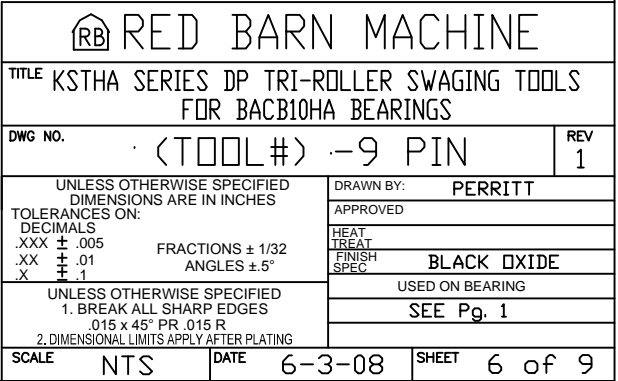
NOTES

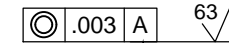
1. BREAK ALL SHARP CORNERS (.015/.03).

 RED BARN MACHINE	
TITLE KSTHA SERIES DP TRI-ROLLER SWAGING TOOLS FOR BACB10HA BEARINGS	
DWG NO. (TOOL#) -11 PRIMARY SEAT	REV 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± 5°	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH BLACK OXIDE SPEC USED ON BEARING SEE Pg. 1
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 6-3-08
SHEET 7 of 9	


NOTES

1. BREAK ALL SHARP CORNERS (.015/.03).






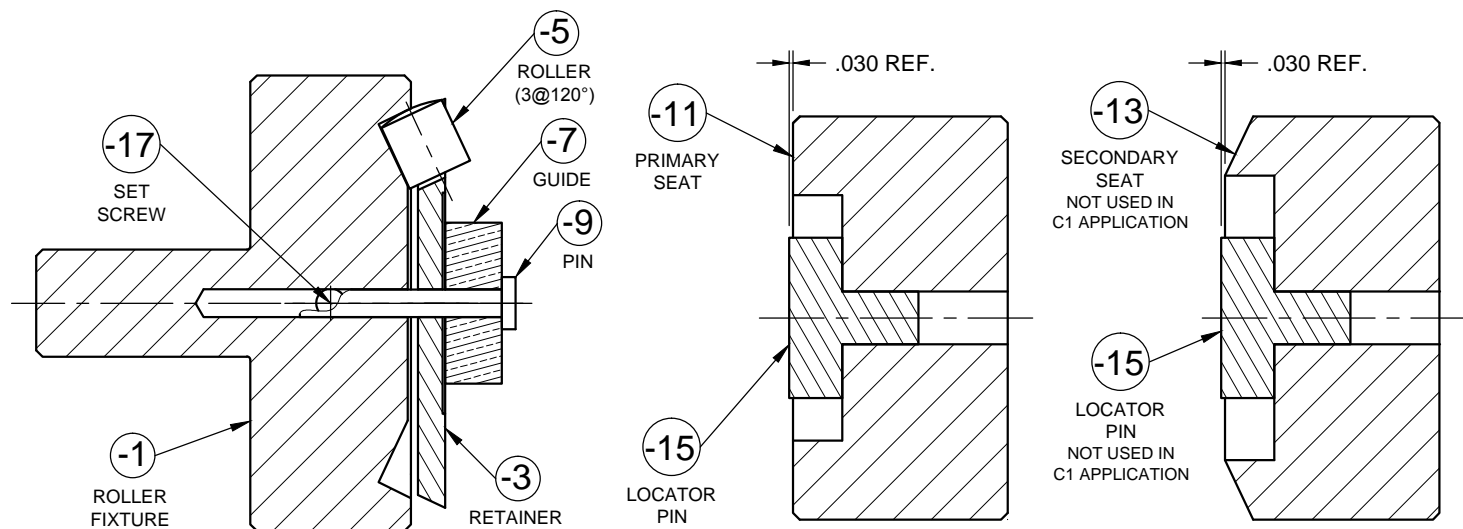
GUIDE

 RED BARN MACHINE	
TITLE KSTHA SERIES DP TRI-ROLLER SWAGING TOOLS FOR BACB10HA BEARINGS	
DWG NO. (TOOL#) -7 GUIDE	REV 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± 5°	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON BEARING SEE Pg. 1
SCALE NTS	DATE 6-30-08
SHEET 5 of 9	



 RED BARN MACHINE			
TITLE KSTHA SERIES DP TRI-ROLLER SWAGING TOOLS FOR BACB10HA BEARINGS			
DWG NO. (TOOL#) -5 ROLLER (QTY. 3)			REV 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± 5°		DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON BEARING SEE Pg. 1	
SCALE NTS	DATE 6-3-08	SHEET 4	of 9

REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	CHANGED -5 ROLLER RADUIS FROM .005 - .010, TO .015 - .020; AND -9 PIN RADIUS FROM .015 MAX., TO .015 MIN. ALSO CHANGED -7 SLEEVE TO -7 GUIDE.	7/7/08	WP	DW



NOTES


1. -5 ROLLERS MUST TURN FREELY IN -3 RETAINER POCKETS.
2. -5 ROLLERS & -3 RETAINER MUST TURN FREELY WHEN TOOL IS COMPLETELY ASSEMBLED.
3. FLAT END OF ROLLERS MUST FACE TOWARDS THE CENTER OF THE TOOL WHEN ASSEMBLED.
4. BEARING CODE 1 (c1) MEANS THAT -13 SECONDARY SEAT AND 1 OF THE -15 PINS ARE NOT USED. BEARING CODE 2 (c2) MEANS ALL ARE USED.

BEARINGS & TOOLS COVERED		
BEARING #	TOOL #	CODE
BACB10HA04 (code 1)	KSTHA04	(c1)
BACB10HA04 (code 2)	KSTHA04	(c2)

ASSY QTY	B/O	PART #	UNIT QTY	DESCRIPTION	B/O INFORMATION OR SPECIFICATIONS	Pg.
		-1	1	ROLLER FIXTURE	SEE CHART	2
		-3	1	RETAINER	SEE CHART	3
		-5	3	ROLLER	SEE CHART	4
		-7	1	GUIDE	SEE CHART	5
		-9	1	PIN	SEE CHART	6
		-11	1	PRIMARY SEAT	SEE CHART	7
		-13	SEE CHART	SECONDARY SEAT	SEE CHART	8
		-15	SEE CHART	LOCATING PIN	SEE CHART	9
	B/O	-17	1	SOCKET HEAD SET SCREW	#8-32 x 1/4	N/S

RED BARN MACHINE	
TITLE KSTHA SERIES DP TRI-ROLLER SWAGING TOOLS FOR BACB10HA BEARINGS	
DWG NO. (SEE TOOL# ABOVE); ASSEMBLY	REV 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	DRAWN BY: PERRITT APPROVED HEAT TREAT LISTED PER ITEM FINISH LISTED PER ITEM USED ON BEARING SEE ABOVE
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 6-3-08
	SHEET 1 of 9

[illegible]

 RED BARN MACHINE			
TITLE			
--			
DWG NO.			REV
--			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX \pm .005 .XX \pm .01 .X \pm .1 FRACTIONS $\pm 1/32$ ANGLES $\pm 5^\circ$		DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON MODEL	
SCALE	NTS	DATE	SHEET
		8-15-07	1 of 1

TITLE				-- --			
DWG NO.						R	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX \pm .005 .XX \pm .01 .X \pm .1 FRACTIONS $\pm 1/32$ ANGLES $\pm 5^\circ$				DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC USED ON MODEL			
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING							
SCALE		NTS		DATE		8-15-07	
				SHEET		1 of	

NOT APPROVED FOR PRODUCTION

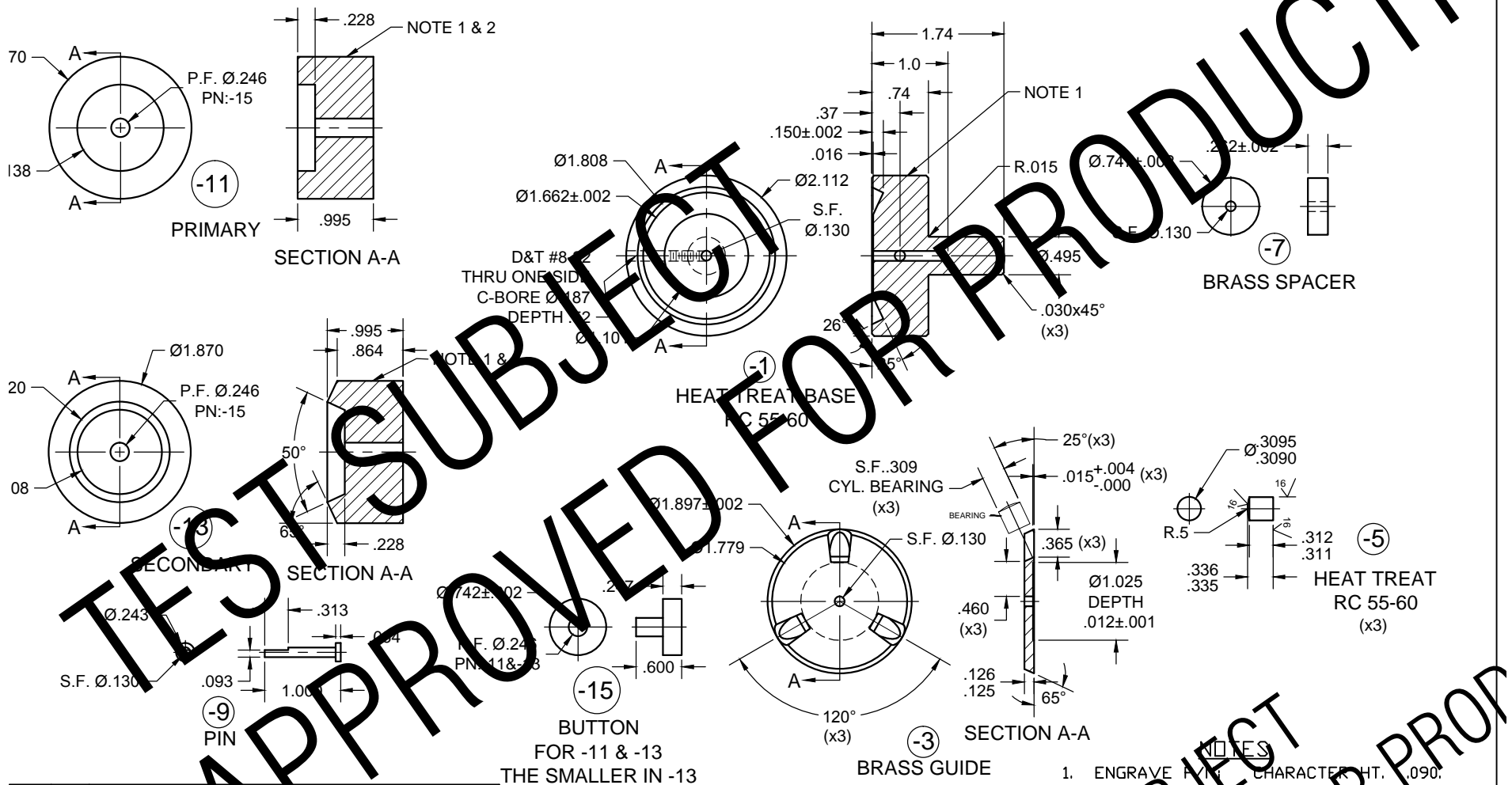
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

PART #	QTY	DESCRIPTION
-1	1	--

USED ON MODEL ? 	DRAWN BY: PERRITT	<div>RB</div> RED BARN MACHINE	
	CHECKED		
	HEAT TREAT		
	FINISH SPEC		
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± .5°	TITLE	
	UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	DWG NO.	REV.
		PART #	
		SCALE NTS	DATE 1-28-06 SHEET 1 of 1

ED

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



QTY	DESCRIPTION
1	O-1 DRILL ROD Ø2-1/8 x 1-7/8
3	BRASS RND Ø2 x 5/16
3	O-1 DRILL ROD Ø3/8 x 1/2
1	BRASS RND Ø3/4 x 3/8
1	1018 RND Ø1/4 x 1-1/8
1	1018 RND Ø1-7/8 x 1-1/8
1	1018 RND Ø1-7/8 x 1-1/8
5	1018 RND Ø3/4 x 3/4

THE SMALLER IN -13

USED ON MODEL
?

DRAWN BY:	PERRITT
APPROVED	
HEAT TREAT	
FINISH SPEC	BLACK OXIDE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS	
.XXX ± .005	FRACTIONS ± 1/32
.XX ± .01	ANGLES ± 5°
.X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° OR .015 R	

RED BARN MACHINE	
WORKING TOOLS	
DWG NO.	RB ST1016
REV	